1984

Naval Postgraduate School Hobby Computer Club / Newsletter No. 8506

Monterey, California, Naval Postgraduate School

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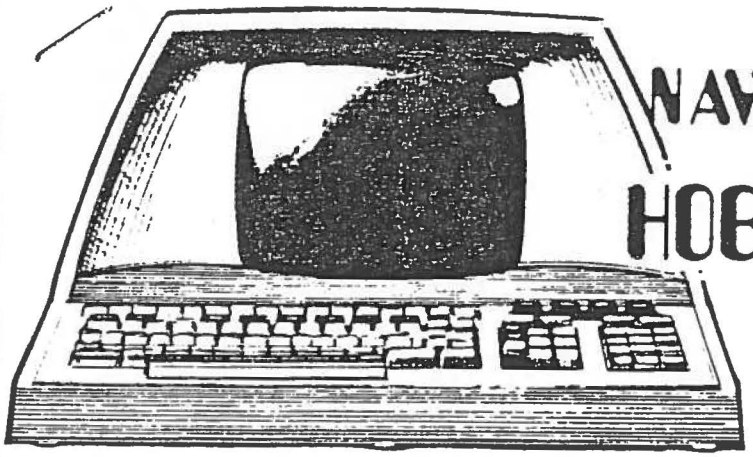

NAVAL POSTGRADUATE SCHOOL
HOBBY COMPUTER CLUB
Monterey, Ca. 93940

No. 8406

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CALENDAR

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BOARD MEETING	30 APRIL 1984
GENERAL MEETING	7 JUNE 1984
BOARD MEETING	9 JULY 1984*
GENERAL MEETING	11 JULY 1984*

(* Due to Summer Break)

From the Editor

This month's theme centers on Apple -- to this end we have two articles, one from Jim Smith on TURBO Pascal on the Apple II, the other from Phil Johnson on the PRODOS operating system. A little lemon tree philosophy; if you want to see more on a particular theme or machine, get your article to me. Don't feel that you must be an expert to submit anything, and I'll cover you on spelling and grammar (but not logic or coherency!).

The other two articles cover CP/M, but the one especially by Andy Bowman should be of interest to all as it covers an important bit of housekeeping -- cataloging.

Next month will cover the HAL (oops, IBM) PC and it's clones. For the submission of articles, please use the following guidelines:

1. Send it to my disk at school (2879P). If you use SCRIPT, Wordstar, or some other word processor, please set the left margin at 10, and please strip the embedded control characters out of the text. (Rob says the high bits ?)

2. An alternative is to give me a call at home (646-0614) and send it to me via MODEM7 (it's in the public domain, for all you CP/M types).

3. Last resort is to drop it off in clear, legible form (prefer typed) to either my SMC (1755) or in my section box (YA-41) in the NSA curricular office in Root. I'd really prefer the first method as it saves my having to re-type your submission, something that can be especially tedious for ones over 2 pages.

-- *Will Dossel*

From the President

In the last few months we've been looking at state-of-the-art microcomputers: e.g. The IBM PC, the Zenith Z-100, a MACKINTOSH, the PEANUT, and some PC "clones", most notably the EAGLE, COLUMBIA, and the PRONTO. Add to this list the 8-bit machines owned by many of the club members (APPLE, KAYPRO, EPSON, OSBORNE, TRS-80, etc.) and you've got a pretty good list of what's available to home and small business users today. I emphasize the word small because I exclude the large business-oriented machines (ala' WANG, etc.) We also haven't seen a SAGE IV, which would be my computer of choice if you could build it from a bare board. (As an aside, I also think mainframes will soon be a thing of the past... distributed networks cost much less and can be made to run faster.)

At our last meeting, we saw some of what's available in process control. Many thanks to CHUCK CHEK of PROLOG Corp for his presentation. Frankly, if I were in the business of writing software to sell, I would write software for process control. In talking with Chuck, I found that less than 10% of industrial controls are accomplished with microprocessors! Talk about virgin territory! Furthermore, the STD BUS Manufacturer's Group has maintained an unadulterated bus standard... cooperatively. Boy! That's something the home and business computer makers will never do!

In conversations with club members, one question often asked is, "Which machine should I buy?" Maybe the question is better put, "Which machine is right for ME?" Oddly enough, club members who already own computers are asking this question as often as members who don't own computers! Why? I guess it's because we all want the latest and greatest... its part of our nature... the reason many of us joined the club to begin with: to find out what IS the latest and greatest. On the other hand, maybe the "experienced" users are asking the second question because they are better able do define what is "right for ME".

"Right for ME" isn't easy to define. One has to start with needs (Text Editing, Data Base Management, Spread Sheets, Number Crunching, Games, etc.) and balance these with the cost and performance of each machine. In evaluating a machine, one also considers what Capt T.H. HOIVIK calls 'ILITIES'. What are ILITIES? Things like: affordability, maintainability, sustainability, reliability, expandability, supportability, and inter-operability. The "right" machine is the one which BEST meets the needs, cost constraints, and ilities.

Given all things equal, which is better, 8-, 16-, or 32-bit? To quote Mark Rollins, the new editor of MICROSYSTEMS, "Our feeling is that the 8-bit, CP/M-based technology is relatively mature, hence we can expect little change in this area in the future. The industry is moving toward 16-bit machines, a market dominated by the IBM PC and its look-alikes." I agree with Mark's analysis; few real surprises wait for us in 8-bit technology. Accordingly, I see the advantages to 8-it machines as: lower cost (affordability); widely available, mature software (reliability, expandability); and established architecture and interfaces (expandability, inter-operability). Disadvantages include: slower THEORETICAL speed, and the possibility of diminishing support in future years. (supportability?, maintainability?, sustainability?)

On the other hand, I personally think that (with the exception of the MACKINTOSH) the higher-bit machines are currently little more than extensions of 8-bit technology. I attribute this to the sloppy implementation of the 8088 by IBM for the PC. Face it, the PC is the defacto 16-bit standard not because of superiority of design, but solely because of IBM's superior marketing. What you've got is a 16-bit processor with 8-bit interfaces. IBM did little to take advantage of the power of the 8088/8086 (and in some cases, slowed it down). We've seen this in the superior speed of the PRONTO, a 80186-based machine. Still, the software available, while not as complete as for 8-bit machines, is impressive. One problem is that not all software runs on all machines (particularly any software which uses graphics). Another problem is that, while MS-DOS is currently the most popular 16-bit operating system, UNIX and UNIX-like operating systems are becoming increasingly popular. One can draw a parallel between the development of CPM (1.3, 1.4, 2.0, 2.2, 3.0/CPM-PLUS, MPM) and the development of MS-DOS (1.0, 1.3, 2.0). What this means is that we can expect changes in the 16-bit hardware and software over the next few years as the technology matures. So for 16- and 32-bit advantages we've got higher THEORETICAL speed, and future enhancements in software and hardware (expandability). Disadvantages include: higher cost (affordability); the risk that the manufacturer of your machine may not be in business next year (ala' OSBORNE) (supportability, maintainability, reliability); the risk that

desired software just won't run (inter-operability); and the risk that future hardware and software won't work on your machine (expandability).

In any case the bottom line is: they're your dollars, spend them wisely.

From the Treasurer

==========> WELCOME TO NEW MEMBERS <==========

The Hobby Computer Club offers a warm welcome to the following new members who joined us during the last month.

Name	CPU
CHRIS HAUSER	IBM PC
THOMAS HOIVIK	OSBORNE 1

The User's Corner

CPU	Chairman	Meeting
8" CP/M	Rob King (384-4468)	
Apple	Joe Riggio	
Epson QX-10	Will Dossel (646-0614)	3rd Thursday
Heath/Zenith	Dave Smith (373-4202)	3rd Thursday
IBM	Chuck Worley (373-6348 evenings)	
Kaypro	Andy Bowman (624-5208 after 2 PM)	
Osborne	Gene Walkin (646-3216/2421)	
Sanyo 555	Dwight Scott (375-3402)	

APPLE

HOW TO KEEP CURRENT ON APPLE DEVELOPMENTS!

THERE ARE SEVERAL PERIODICALS AVAILABLE TO THE APPLE USER. THE FOLLOWING IS A LISTING OF MOST OF THEM.

MAGAZINE	ADDRESS	PRICE	COVERAGE
SOFTALK	P.O. BOX 7039 NORTH HOLLYWOOD, CA. 91605	$24.00	GOOD FOR GENERAL INFO
PEELINGS II	P.O. BOX 625 HOLMES. PA. 19043	$21.00	HARDWARE AND SOFTWARE REVIEWS

HARDCORE COMPUTERIST	P.O. BOX 44549 TACOMA, WA. 98444	$25.00	INFO ON COPY PROTECTION
APPLE ORCHARD	P.O. BOX 6502 CUPERTINO, CA. 95015	$24.00	GOOD FOR GENERAL INFO.
NIBBLE	P.O. BOX 325 LINCOLN, MA. 01773	$26.95	GOOD FOR GENERAL INFO.
INCIDER	P.O. BOX 991 FARMINGDALE, NY. 11737	$24.97	GOOD FOR GENERAL INFO.
A.P.P.L.E.	21246 68TH AVE S. KENT, WA. 98032	$26.00	$25.00 TO JOIN HARDWARE DISCOUNTS
A+ DISK MAGAZINE	P.O. BOX 2469 BOULDER CO. 80321	$119.00	6 ISSUES WITH DISKS

Note: *The appearance of personal endorsements of products, organizations or other services in this column is not meant to convey endorsement, either positively or negatively, of such products or services by the NPS Hobby Computer Club.*

Articles

TURBO Pascal on the APPLE II

by Jim Smith

OK. Everybody knows that you can't get a high-level language for a reasonable (ie. under $100) price. Apple Pascal costs $150, and Digital Research Pascal/MT+ is nearly $600. True, there was JRT Pascal, but even at $29.95, the product you received, if any, was incompatible with any other dialect of Pascal, and therefore not portable; additionally, programs written in standard Pascal would blow JRT Pascal sky-high. (By the way, when first introduced, JRT Pascal was priced at 225.)

Well, TURBO Pascal is here, and its worth the wait. Unlike JRT Pascal, TURBO Pascal is essentially standard Pascal, with non-standard extensions; and unlike Apple Pascal, it is a true native-code compiler. At $49.95, TURBO Pascal is a complete package allowing the programmer to develop and test software in a friendly, interactive environment, similar to the Apple Pascal operating system.

To run TURBO Pascal, you need a 48K Apple II, one disk drive, and a Z-80 card with CP/M. Additional memory and disk drives, as well as a printer and an 80-column display, greatly aid program development. Since the compiler and

editor (a functional subset of Wordstar) occupy only 28K, over 30K is available for program and dynamic variable storage. Larger
programs may be compiled as separate units, and linked at run time, providing nearly unlimited program size capabilities.

Since the compiler and editor are resident in memory, truly phenomenal compile and load times are realized. Using the Sieve of Eratosthenes benchmark (Gilbreath, Jim and Gary, "Eratosthenes Revisited", BYTE, January 1983, pp. 283-326), the following results were obtained:

LANGUAGE	COMPILE/ LOAD TIME	EXECUTION TIME
Applesoft BASIC	N/A	3020 sec
Apple Pascal	17 sec	510 sec
*TURBO Pascal	< 1 sec	45 sec
**Pascal MT/+	51 sec	23 sec

* 2 MHz Z-80 ** 4 MHz Z-80

A sample spreadsheet program is included on the disk to demonstrate several of the features/capabilities of TURBO Pascal. This 1261 line program compiles and loads in 38 seconds, and provides a good example of a real Pascal application.

Aside from a dramatic increase in execution speed, the major difference between TURBO Pascal and Apple Pascal is TURBO's lack of any graphics capability. I have several programs that could benefit from the increased speed of TURBO Pascal, but until I write my own graphics drivers, or Borland incorporates graphics into TURBO Pascal, I have to use Apple Pascal. (Version 2.0, just announced, incorporates full heap management and automatic overlays, but still no graphics.)

Overall, TURBO Pascal is a complete program development package for both beginners and serious professionals alike. The manual is well written with numerous examples, but has an annoying number of typos and grammatical errors. There is also an error in the text highlighting feature of the editor - the command works in reverse. Still, the combination of a solid, fast compiler, and an unbeatable price of only $49.95, makes TURBO Pascal one of the best ways to enter the world of Pascal programming.

THE PRODOS USER'S KIT

BY PHIL JOHNSON

PRODOS FROM APPLE COMPUTER INC. IS AN UPGRADED OPERATING SYSTEM FOR THE APPLE II FAMILY. IT'S FEATURES INCLUDE RAPID DISK-ACCESS, FILE COMPATIBILITY WITH APPLE III SOS FILES, EASY INTEGRATION WITH HARD DISK SYSTEMS, AND ENHANCED APPLESOFT BASIC COMMANDS.

THE PRODOS USER'S KIT CONSISTS OF THE PRODOS USER'S MANUAL AND PRODOS USER'S DISK VERSION 1.Ø-BASED UTILITIES. THE DISK CONTAINS THE PRODOS OPERATING SYSTEM, ALONG WITH UTILITIES FOR PRODOS-BASED APPLICATION PROGRAMS. SOME OF THESE UTILITY PROGRAMS ALLOW YOU TO PERFORM HOUSECLEANING OPERATIONS (SUCH AS COPYING, DELETING, AND RENAMING) ON SPECIFIC FILES OR ENTIRE DISKS. OTHERS ALLOW CONVERSION BETWEEN DOS AND PRODOS FORMATS, AND DISPLAY INFORMATION ABOUT YOUR SYSTEM.

SYSTEM REQUIREMENTS INCLUDE APPLE IIe OR 64K APPLE II+ AND ONE OR MORE FLOPPY-DISK DRIVES.

PRODOS IS JUST NOW COMING INTO THE MARKET PLACE AT $4Ø.ØØ. THIS OPERATING SYSTEM WILL SOON BE THE STANDARD AND CURRENTLY ALL NEW APPLE IIe'S AND C'S ARE BEING SHIPPED WITH THIS OPERATING SYSTEM. ALTHOUGH THE MANUAL IS SOME 15Ø PAGES LONG IT LACKS DEPTH FOR THE EXPERIENCED USER. FOR THOSE WHO NEED MORE INFORMATION ORDER THE PRODOS TECHNICAL REFERENCE MANUAL.

USING CP/M PUBLIC DOMAIN CATALOG PROGRAMS

CAT and original MAST.CAT system protocols by Ward Christensen. NCAT32 and XCAT36 by Irvin M. Hoff. SQUEEZE etc. by Dick Greenlaw. SD-44 by David Boruff. LABELDSK by Cameron Hall. UNICAT by John L. Dove III

In the beginning -- when you don't have many programs or data files or both -- you can keep it all in your memory, both which is which and which is where. It doesn't take long, however, for disks to start piling up, for programs and revisions of programs and revisions of revisions of programs to start piling up, for letters and notes and reports and spreadsheets of all kinds to start piling up.

Sooner or later you will conclude that you need not one, but TWO distinct and different, yet clearly interrelated systems for managing all this ... stuff. You need, on the one hand, some simple, yet satisfactory way of NAMING [hence classifying] the various kinds and instances of programs with which you deal. This matter is discussed at length and brilliantly by an experienced disk librarian in a 12K file, LIBRARY.YES, on Disk 4 of the NPSHCC's recently issued set of public domain programs. So much for taxonomy!

But you also need some way of handling the PHYSICAL RECORDS of information, a way [at once convenient and secure] of moving, storing, locating, and retrieving programs on disks. For whatever it is worth, here are some suggestions, these shot out of a cannon, so to speak, this for the sake of saving space.

1. ASCII files for storage may be condensed by using SQUEEZE.COM. This results in a saving of space of about 45 ercent. Squeezed files may be reconstituted for viewing or printing by using TYPE17.COM. Or they may be restored to their original form by using UNSQUEEZE.COM.

2. Every disk should be paired with a duplicate. Both disks of each pair should be identified by the SAME disk number. The two disks of each pair may themselves be differentiated by using differently colored labels. In the end you have two series of disks matched one-to-one. Thereafter, only one of these two color-coded series of disks must be explicitly cataloged. All references will be to the disk number ONLY.

3. Before the contents of a disk can be cataloged, the disk number must itself be written electronically into the directory of the disk in question, and this in such a way that it will bubble to the head of the list in any sort. By convention, disk identification numbers must have AT LEAST the following content: -.nnn [in which nnn represents the disk number itself]. AT MOST it may be as follows: -dskname.nnn [in which the "dskname" is usually functional, as UTILITY, FINANCE, LETTERS, PASCAL, WRDSTAR, etc]. If each entry in a catalog contains filename.ext-.nnn, however, adding the word UTILITY to each disk identification will increase the length of the catalog file by more than 40 percent [!!!], slowing every search very significantly. We recommend, therefore, that NO diskname be cataloged IN THIS WAY: such names are irrelevant to the cataloging process itself or to any inquiry involving a catalog file. [Cf. 9 below] Instead, to indicate that a SYSTEM of programs exists on some disk, SAVE on that disk a ØK file using the system name with DSK as extent, such as WORDSTAR.DSK or BDS/C.DSK. IMPORTANT: don't use hyphen.

4. Writing "SAVE Ø b:-utility.ØØØ" [or whatever] on 6Ø or 7Ø disks is tedious as hell. We recommend use of the menu-driven MBASIC program LABELDISK.BAS, a PD utility by a present member of our club: it automatically increments the successive numbers, disk by disk, from a starting number of your choice, writing ID numbers [AND names, if desired] to a series of disks at a rate of about FIVE DISKS PER MINUTE!

5. The best catalog building program, bar none -- NCAT32.COM, in the public domain -- can be used with ooth single- or double-drive micros. Loading NCAT32 installs a

single-drive procedure. Loading NCAT32 B: installs a double-drive routine in which, with NCAT on the A: drive, one feeds the disks to be cataloged one by one into the B: drive, hitting a <CR> each time. The result? Each disk directory is sorted and counted, and its program-names are added to the contents of the master catalog file [which is also on the A: drive] ... but not merely added, for these filenames in process are sorted alphabetically with respect to all preexisting program-names, and so on. Freespace stats are recorded. Finally, a BACKUP catalog file, opened automatically at the time of first disk entry, is updated as each new disk is cataloged.

6. Whenever you change the contents of some disk previously cataloged, you can easily update the catalog file, together with its backup, by simply resubmitting this disk under NCAT32, at which time a comparison of new and old contents is made, alterations [both deletions and additions] are made ... even new freespace stats are substituted for the previous ones, all of this automatically. Breathtaking!

7. Once you have a fat MAST.CAT on your catalog-utility disk, you can ask it questions by using CAT.COM, as follows:

	CAT ALLOT	=ALLOT.* *.*
	CAT *.INT	=*.INT *.*
[but as well]	CAT *.* *.Ø35	displays a SORTED LIST OF ALL FILES ON DISK SPECIFIED
[or]	CAT *.* UTILITY.*	all files on any disk named UTILITY, no matter the number

8. Finally, by using XCAT36.COM you can create and either print or save to disk an alphabetically sorted directory of all filenames and locations with cross-referencing of multiple locations for single files.

HOWEVER:

You must in the first instance create your MASTER CATALOG FILE by using your word processor. Name it MAST.CAT and save it on your catalog-utility disk. A MAST.CAT file MUST start with an "ignore" list, containing the names of files you just don't want cataloged ... like D.COM, for example, [which I have on every disk I own]. The IGNORE LIST must start with (and each file to be ignored must occupy its own line and the list must conclude with) AND a <CRw>. IF there are NO files you want to ignore, your MAST.CAT file must start with an EMPTY ignore-list consisting of (and) and <CR>.

9. A catalog or DIRECTORY OF DISKS, rather than of files, is most easily compiled as follows: put SD-44.COM and SYNONYM.COM on the catalog-utility disk. Using the latter, create S.COM as follows:

A>SYNONYM S.COM SD-44 B:*.* $RF<CR>

then feed all your [numbered] disks through the B-drive ... bam ... bam... bam, entering each time A>S<CR>. This will reset the disk, generate a four-across sorted disk directory, report correct freespace stats, and write this directory to a file [SD.DIR] opened automatically when this command is first invoked: each directory generated thereafter will be appended to SD.DIR. This succession of disk directories can be run through your word processor whenever you like, cleaned up a bit perhaps, paginated, printed, and put between covers. Neat!

10. Or UNICAT/EPSCAT.COM, by a present club member, will easily write sorted disk directories, if desired, on labels that may be affixed either to disk envelopes or to the disks themselves.

So much for all this! -- Andy Bowman

CP/M TO IBM EXEC FILES

By J. L. DOVE III

Thanks to some help from that one-eyed varmit, Joe Blanchard, I have finally got the IBM somewhat civilized. By automating some of the commands, I can just use all of my easily remembered CP/M commands when I use the IBM-a-HOG.

For example, when I want to erase a file, I just type:

ERA FILENAME FILETYPE<CR>

The IBM then shows me what it is doing by typing:

ERASING: FILENAME FILETYPE

and then erases it.

If I want to see what is on my disk, I just type:

DIR (or DIR * FILETYPE, etc.)

The IBM replies:

SHORT DIRECTORY OF THE DISK . . .
FILENAME FILETYPE
FILENAME FILETYPE
FILENAME FILETYPE
ETC.

If I want to see the sizes of the files (for example, when I have to kill a file to make room for more), I type:

SD<CR>

The IBM then replies:

Sorted Extended Directory of the disk . . .

```
FILENAME FILETYPE FM FORMAT LRECL     RECS    BLOCKS  DATE TIME
ADDRESS  LIST     1 F          80      437        35  8/08/83 14:25:24
APPLE    LIBRARY  etc.
```

This is the same as typing LIST (DATE, but is much easier. I can
also type:

SD FILE* *

to get all files with similar names, just like in CP/M.

If I want to see how much room I have left on the disk, I type:

STAT

The IBM then replies:

```
LABEL  CUU M  STAT CYL TYPE BLKSIZE FILES  BLKS USED-(%) BLKS LEFT BLK TOTAL/
1765P 191 A   R/W    8 3330  1024    95       1589-95   83        1672
```

This is useful if I need to save a long session to disk. It tells me if I have to first kill something.

HOW IS IT DONE?

Well that you ask. By creating EXEC's with the proper names (DIR EXEC, STAT EXEC, SD EXEC, etc.) and writing in the code to translate the arguments into IBMese, you can easily duplicate most of the CP/M commands. The ones which are now functional are:

DIR EXEC
STAT EXEC
ERA EXEC
SD EXEC

Just copy the ones you want and begin talking some sense to the IBM.

Any improvements would be greatly appreciated. I am still working on a REName EXEC. I have to find a way to change the IBM order, (oldname, newname) into the CP/M order (newname=oldname) regardless of whether you enter just filename and filetype or if you also enter the filemode.

Well, that's something else to do in the spare time . . .

Advertisements

For Sale: Diablo 630 API Letter Quality Printer with tractor and cable: $ 2,100; Hayes 300 baud Smartmodem with cable: $ 125.00; Morrow MD-2 Home Computer with Wordstar, MBASIC, and much more: $ 1,400; call **375-5217** or **646-3264**, ask for Eric.

S-100 HARD DISK CONTROLLER FOR SALE

A **Morrow HDCA-2 winchester controller.** For 8" and 14" HARD-sectored winchester drives only! Will control 10 and 20 Megabyte Fujitsu and 26 Megabyte Shugart drives. Tech manual includes software listing for boot program and low-level drivers for BIOS. Definitely not for the timid or unskilled... But WHAT A DEAL!!! $200 call Rob King 384-4468

Miscellaneous Ramblings

NPSHCC Boardmembers:

President: Rob King 384-4468
V. President: Dave Smith 373-4202
Treasurer: John Dove 372-9085
Secretary: Joe Montgomery
Newsletter Editor: Will Dossel 646-0614
Publicity: Harry Sun
Programs and Speakers: Jay Wallen
Projects: Joe Blanchard
Board member-at-large: Glen Oelrich
===> Party: *VACANT* <===

We currently have all back issues of the newsletter on hand except for the following:

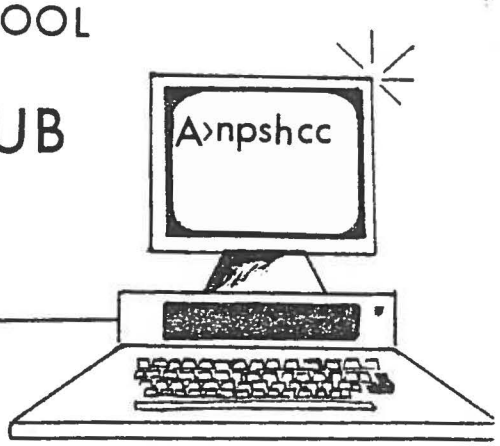
1982: July, Sept.
1983: April, August, Sept., and Dec.

If you have any of these on hand please contact Will Dossel so we may copy them and complete the club's library.

NAVAL POSTGRADUATE SCHOOL

HOBBY COMPUTER CLUB

MONTEREY, CA. 93943



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CALENDAR No. 8408

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BOARD MEETING	29 August 1984
GENERAL MEETING	6 September 1984
BOARD MEETING	19 September 1984
GENERAL MEETING	4 October 1984

From the Editor

Some new business and some old... Beginning this month our new newslette: banner will carry the standard of the club into the modern age. Also beginning this month is an intensive hunt for new officers. No, there hasn't been any kind of a Stalinist purge, but a number are graduating at the end of this quarter and the next, and hence replacements are needed. In addition, we also need a new editor as yours truly is deep in the thesis swamp. What I'd really like to do is have somebody work with me for the next few issues before taking over the job. I know it sounds trite, but this really is your chance to do something for your fellow clubmembers, so give it a thought, ok? A final note, the September issue and those thereafter will be back to a monthly basis. (And please, no more articles created with XEDIT or the like, all I get are caps and I don't want to re-type the article)

-- Bill Dossel

From the President

PROMISES MADE, PROMISES BROKEN

THE BOARD OF DIRECTORS HAS PURCHASED THE ENTIRE CPMUG/SIG-M PUBLIC DOMAIN LIBRARY, USING CLUB FUNDS. WE JUST GOT TIRED

OF HEARING EXCUSES FROM RICK RAMRAS OF LEGACY COMPUTERS. AS ANNOUNCED AT THE JUNE MEETING, WE (THE BOARD) CONSIDER THE SUBJECT CLOSED...NOT OPEN FOR FURTHER DISCUSSION.

FOR THOSE OF YOU WHO MISSED IT, THE JUNE MEETING WAS A SUPERB EXAMPLE OF WHAT COMPUTER CLUBS ARE ALL ABOUT:

GENE WAKLIN DEMONSTRATED HIS LITTLE BOARD COMPUTER... Z80, 64K RAM, 2 SERIAL PORTS, LOTS OF UTILITIES (CP/M), AND IT'S THE SAME SIZE AS A MINI-FLOPPY! CAN'T WAIT TO SEE THE WHOLE THING IN A SINGLE CABINET WITH TWO HALF-HEIGHT, DOUBLE SIDED, DOUBLE DENSITY MINI-DRIVES, GENE. BRING IT AGAIN WHEN YOU'VE GOT IT DONE. (BY THE WAY, IT'S THE CLUB'S POLICY NOT TO ENDORSE PRODUCTS. HOWEVER, I THINK THE MEMBERS SHOULD KNOW THAT SUCH A SYSTEM CAN BE PUT TOGETHER FOR AROUND $800-$900, NOT INCLUDING TERMINAL, PRINTER AND/OR MODEM. IF YOU'RE INTERESTED IN MORE DETAILS, CONTACT GENE.)

PHIL JOHNSON SHOWED US HIS APPLE-BASED HOME CONTROL SYSTEM. HE CONTINUOUSLY MONITORS THINGS LIKE TEMPERATURE, AMOUNT OF LIGHT OUTSIDE, MOTION, STATUS OF SMOKE DETECTORS, ETC. HIS SYSTEM CONTROLS LIGHTS, ALARMS, AND EVEN CALLS THE POLICE, FIRE DEPARTMENT,OR POWER COMPANY TO REPORT (USING SPEECH SYNTHESIS) INTRUSION, FIRE,OR LOSS OF POWER. (THAT'S WHY HE BUILT HIS BATTERY-BASED UNINTERRUPTABLE POWER SUPPLY!) THANKS PHIL.

JIM SINDBERG PRESENTED TURBO PASCAL... EASY TO USE AND FAST! HE CAN GO FROM PROGRAM TEXT ENTRY, TO COMPILE, TO PROGRAM EXECUTION, AND BACK TO TEXT ENTRY WITH 4 KEYSTROKES (WITH A POINTER TO WHERE THE PROBABLE PROGRAM ERROR IS!!).

ANDY BOWMAN DISCUSSED USE OF SOFTWARE. AS THE QUINTESCENT USER HIS WORDS, NOT MINE), AND AS OUR 5.25 CPM PUBLIC DOMAIN SOFTWARE LIBRARIAN, HE'S LOOKED AT A LOT OF PROGRAMS. HIS PHILOSOPHY.... WELL YOU SHOULD HAVE BEEN THERE.

JOHN DOVE BROUGHT IN HIS Z-100 AND SHOWED US.

HARRY SUN DEMONSTRATED A MS-DOS BATCH PROCESSING PROGRAM. HE AND JAY WALLIN EXPLAINED A NEW CONCEPT: FREEWARE (AS OPPOSED TO PUBLIC DOMAIN SOFTWARE). FREEWARE, AS I UNDERSTAND IT, IS ANALOGOUS TO THE BOOK AND FLOWER PEDDLERS YOU FIND IN AIRPORTS... IF YOU TAKE IT, YOU ARE EXPECTED TO MAKE AN APPROPRIATE DONATION. GOOD PROGRAM, BUT QUESTIONABLE MARKETING TECHNIQUE... HMMM... COMPANY MUST BE BASED IN SAN FRANCISCO.

ALL IN ALL, WE HAD A GREAT TIME. THE PARTY IN JULY WAS ANOTHER SUCCESS AND MANY THANKS TO ALL WHO EITHER HELPED WITH THE COOKING, ETC. OR BROUGHT THEIR SYSTEMS. A GOOD TIME WAS HAD BY ALL.

ROB KING

P.S. My sister and I wish to express our deep appreciation to the club for the lovely flowers sent in sympathy at the recent death of our mother.
Rob

From the Treasurer

==========> WELCOME TO NEW MEMBERS <==========

The Hobby Computer Club offers a warm welcome to the following new members who joined us during the last month.

Name	CPU
CHRIS HAUSER	IBM PC
THOMAS HOIVIK	OSBORNE1

The User's Corner

CPU	Chairman	Meeting
8" CP/M	Rob King (384-4468)	
Apple	Joe Riggio	
Epson QX-10	Will Dossel (646-0614)	3rd Thursday
Heath/Zenith	Dave Smith (373-4202)	3rd Thursday
IBM	Harry Sun	
Kaypro	Andy Bowman (624-5208 after 2 PM)	
Osborne	Gene Walkin (646-3216/2421)	
Sanyo 555	Dwight Scott (375-3402)	

EPSON QX-10/HX-20

Within the next few weeks Chip Cooper will have the RBBS/RTPM system fully operational. There is a batch of super applications programs available on the disks we'll be getting from the national user's group available on the bulletin board for both QX-10 and HX-20 users. Additionally, you won't have to suffer obscene phone bills and the like from having to go to the Dallas or Michigan RBBS to get these -- something of not inconsiderable relief to us 300 bd folks. One of the first applications programs you should pick up is VAL-AID.CPM and VAL-AID.DOC (remember to rename .CPM to .COM). This allows you to do enlarged print, compressed print, super and subscript as well as double strike, all within your Valdocs file. Bold, italic, and underline are still available in Valdocs via the typestyle keys, so they were not included in this program. As you go through your document, embedded characters will tell your Epson printer what to do, for example, (\5) will turn on compressed print and (\6) turns it off. If you do't have a modem yet, come by sometime and I'll run off a copy for you. It's in the public domain.

--Will Dossel

5.25" CP/M

FOUR GOLD STARS FOR A ONE K COM FILE

LOOKUP.ASM/COM/DOC -- IN THE PUBLIC DOMAIN
BY JIM SCHENKEL
415/928-4445 DATED 9/1/1982

The author of this powerful and versatile program is much too modest in his thumbnail description of what it will do: "Reads a data file and tries to match an input string." In my judgment this program is ELEGANT, ECONOMICAL, FAST, and HIGHLY USEFUL. LOOKUP will search through a text-file for a string that may contain as few as 3 to as many as 128 of the characters that are normally found on the standard ascii keyboard, whether numbers, UPPER CASE letters, or special characters. The characters of the input string may be mixed or combined in any way you like. "?" as the first character of the prompt string is read literally; in any other position it is read as a wildcard. If a match is made with any PART of a line, that line AS A WHOLE is displayed on the console. The search product can also be sent to the printer with the ^P toggle. Because a LINE is defined in this program as any string of characters between <CR>'s, as many as SEVEN PHYSICAL LINES of an 80 column screen may be displayed before the maximum of 560 characters per [logical] line is reached. As in other forms of magic, what you put into the hat in the beginning places limits on what you can come up with later on. Keep in mind, therefore, that lower-case letters are not subject to the search, although they will be displayed if they happen also to be on a line in which a match to other characters has been made. The claim is made that this program has been tested with files as long as 50K and that relative to a 64K RAM no problems have been experienced. The user is warned to exercise caution if searching files longer than this. NOTE: LOOKUP will not work with a Wordstar "document" file. If using WS, a searchable file may be created using the "N" command, NOT the "D" command. If using Perfect Writer to create the file to be searched, one should use NORMAL, rather than the FILL mode, IF, that is, one wants to make use of lines longer than those forced by the automatic <CR>. After having used this utility for a couple of months, I am still astonished each time I use it by the breathtaking speed with which it does its stuff. Typing LOOKUP with no predicate will cause a search of the default disk for a user-created file named BOOK. If found, the prompt will display under the heading: "TELEPHONE BOOK". Depending on what you have put into "BOOK" in the first place, if you type in someone's name, you may get his name and telephone number, or his name, telephone number, address, zipcode, and all kinds of remarks -- as we said, up to a maximum of 560 characters worth of information.

If BOOK is limited to name, area code, and telephone number, as many as 1500 entries can be successfully accessed. But what impresses me even more is the fact that if one uses

the 7 physical line capacity to the limit, one can use LOOKUP with a small database for storing and retrieving information of all kinds -- at up to some 100 words per entry. This is as much information as most people manage to get on one side of a 3 x 5 card. If each entry uses most or all of the 560 character limit, one could store about 90 such entries within the theoretical 50K limit for one LOOKUP file. One friend, a botanist, uses this program set to sort his field note in terms of many different variables, either printing the product, or saving it to disk by using Nick Hammond's SPOOL.FIL.

--Andy Bowman

HEATH/ZENITH

The CP/M user group public domain software library has been downloaded onto 5.25" Heath/Zenith disk format. Each volume (1-90) is on one double-sided double-density format. The CPMUG library catalog is available from:

CPMUG
The CP/M Users Group
1651 Third Ave.
New York, NY 10028

The price per catalog copy is $10.00 postage paid. The catalog will be available for review by NPSHCC members only at each SIG meeting.

We will soon have 10 diskettes of Z-100 and H/Z-89 software in our library from the CAPITAL HEATH USER'S GROUP. Within one month we will have 100 disks of IBM-PC BASIC (saved in ASCII form) PCMUG Library in the NPSHCC club library for any H/Z-100 club member interested in converting the source code over to Z-Basic.

Any questions call Dave Smith, 373-4202.

Note: *The appearance of personal endorsements of products, organizations or other services in this column is not meant to convey endorsement, either positively or negatively, of such products or services by the NPS Hobby Computer Club.*

Articles

IBM PC NOTES: PARTS, POWER SUPPLIES & BACK UP UNITS

By John Crosby

The first bit of "nice to know" trivia about IBM is that they have a parts depot in Greencastle, Indiana and will sell parts to anyone who calls them. The phone number is 317-658-2022. The person who answers the phone will ask you for a

part number, but if you don't know the part number don't worry because they'll look it up for you. The terms of sale are net 30 with delivery in 10-14 days. The only drawback is that Big Blue bills from the state you live in, not Indiana, so you're stuck with the California sales tax. Because I plan to eventually install a hard disk in my PC I used the number to buy an XT power supply (the 130 watt power supplyis part number 8529247 and costs $290.00 in case someone would like to buy one). The 130 watt power supply installs in the PC just like the regular 63.5 watt unit. The connections are the same so its a simple matter to remove the four screws on the back panel to remove the old power supply (make sure you unplug the computer before you start working inside the machine). Slide the disk drives forward about 1/2 inch to allow the power supply to move toward the front of the machine so that it can be freed from the hooks on the bottom. Unplug the four connectors from the mother board and disk drives and lift the old power supply out. Install the 130 watt power supply in the reverse order.

A lot of people, myself included, have bought the backup power supplies that the club is selling in order to protect ourselves from the inconsistencies of the local line power. This in itself presents no problem because the PC-200 and XT-300 units made by PTI Industries work well with a standard IBM PC. A problem can occur however if you have either an XT with a Zenith power supply, or if when you bought your 130 watt power supply from IBM to install an internal hard disk in a PC the unit you got was manufactured by Zenith (my misfortune). The question that remains with the 130 watt power supply is "Who made it?" The easiest way to tell if it's a Zenith unit is to pull the plug on the back up power supply; if the system stays online it's not a Zenith and you should be okay. If you pull the plug on the back up power supply and the system reboots you've got a Zenith. IBM claims all of their power supplies are working correctly, but this problem consistently occurs with Zenith 130 watt power supplies (all standard 63.5 watt PC units work with a back up power supply regardless of manufacturer). If not corrected this situation effectively negates any benefit that a back up power supply would offer in the area of data preservation when faced with a line power failure.

There are two potential fixes for the situation. I've tried both of them; one worked and the other didn't. The method that failed (on my power supply - it may work on others) was cited in anarticle in the April 3, 1984 issue of PC Week. The solution is to turn the pot labelled R36 on the power supply circuit board to increase the lag time from three to 20 milliseconds. With this pot turned clockwise as far as it would go the best result that could be achieved was approximately a 50% reboot rate. The other solution came from PTI Industries in Santa Cruz, the company that makes the Datashield back up power supplies that the club sells. The fix involves removing a 2.2 microfarad capacitor and replacing it with a 6.8 microfarad capacitor. This fix costs $1.10 for the new capacitor and works 100% of the time.

The steps to replace the capacitor are:

1. Unplug the computer and remove the power supply from the PC or XT

2. Remove the cover from the power supply (this requires a 1/4" nut driver and a Torx 15H screwdriver)

3. Disconnect the fan plug P5 and the power plug P3 from the main circuit board

4. Remove the four screws holding the main circuit board and take the board out of the case

5. Locate and remove the 2.2 microfarad polarized capacitor that is connected to pin one of the quad-comparator (14-pin integrated circuit usually labelled IC-2; connection may be via jumper wire on some boards). PTI reports that on boards labelled"2Ø4-1Ø71B" and "772Ø4-1Ø71-Ø1" the capacitor is C15; my board is labelled "2Ø4-1Ø71-Ø1" and the capacitor is C25.

6. Install a 6.8 microfarad tantalum capacitor (minimum 15volt rating) in place of the removed capacitor. Make sure the new capacitor is installed with the polarity the same as the one that was removed (there should be a "+" mark on the board).

7. Reassemble and reinstall the power supply.

Replacing the capacitor increases the lag time of the Zenith power supply from three to 2Ø milliseconds and gives the backup power supply enough time to switch on and prevent a system reboot.

MS-DOS COMMAND LINE EDITING KEYS ON THE ZENITH Z-1ØØ & IBM PC

by J. L. Dove III

In many ways, MS-DOS is the lazy man's dream. I speak from provides many shortcuts for faster command entry and more powerful combinations of functions. It's not UNIX, but it has several of its more appealing features. One example is the COMMAND LINE editing keys. Using these keys, you can simply correct an error in your COMMAND LINE without having to retype the whole line. Quite a boon for the club-fisted typist. Although there is an excellent discussion of the command line editing keys in chapter 4 of the Z-DOS Software Documentation, Volume I. I'd like to briefly to summarize with examples of each key's use.

ZENITH Z-100 and IBM PC KEYS:

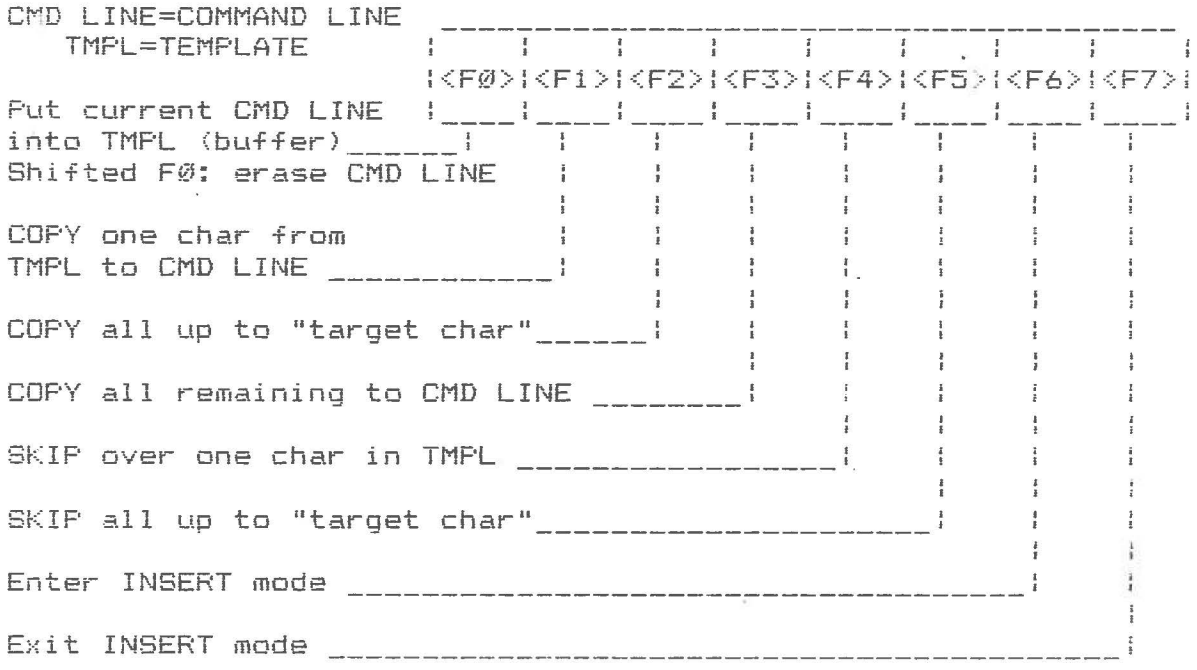
In this article I'll refer to both the Zenith Z-100 keys and the IBM PC keys. Although all functions are available on both machines, the key layout and use are somewhat different. At the beginning of each function, I'll label the appropriate keys for each machine. When I use them in later references,

I'll list the ZENITH key followed by a slash followed by the

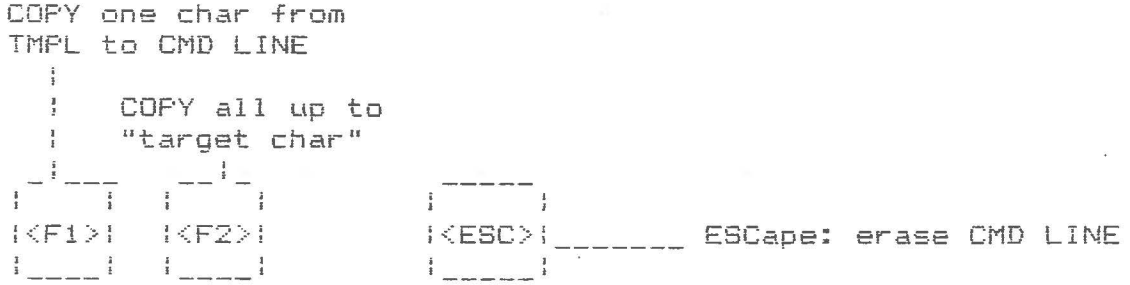
IBM PC key. As you read the article, just use the correct

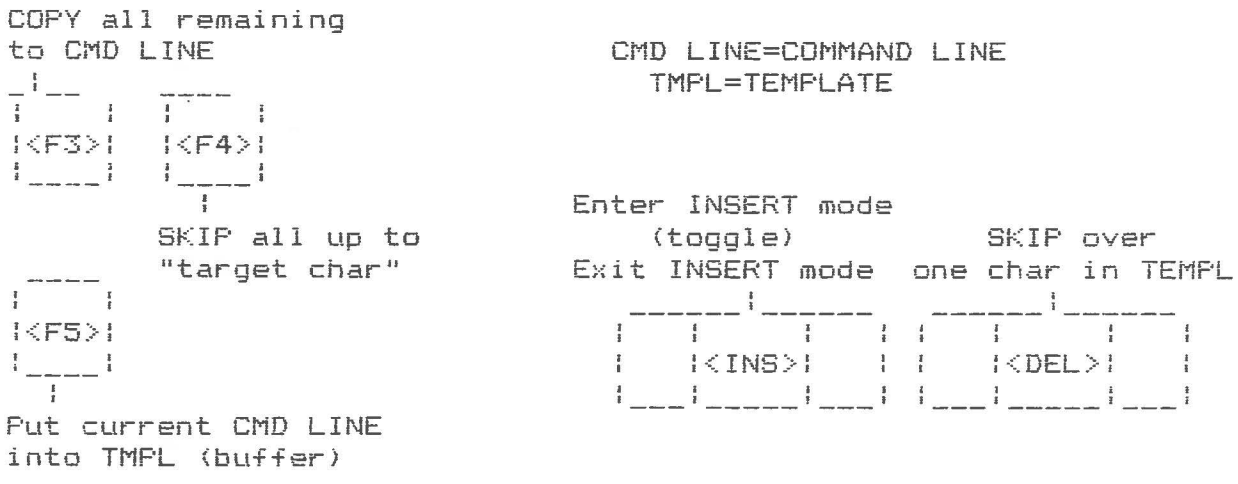
label for your machine.

Here are the ZENITH keys and their functions:



On the IBM PC, the keys are laid out as follows:





ZENITH ==> Put current CMD LINE into TEMPLATE
IBM PC you press <RETURN>, press <Ø>/<F5> to copy the command
<F5> line into the TEMPLATE buffer. An at sign (@) will appear at the end of the command line to show that it has been copied.

NOTE: When you press <RETURN> or <Ø>/<F5> the line on the COMMAND LINE is copied into the TEMPLATE buffer. Now you can pick and choose of the characters in this buffer. The remainder of the keys allow you to selectively move characters from this buffer to the command line.

ZENITH ==> Erase COMMAND LINE
SHIFTED Use this key when you wish to discard the current
<Ø> COMMAND LINE without disturbing the TEMPLATE buffer. This is useful should you really botch up the editing IBM PC the first few times you try to use these editing keys.<ESC>

IMPORTANT NOTE: Keep in mind that there are essentially two cursor pointers in this process. The one on the screen and the one pointing to a spot in the Template. The editing keys affect the pointers in different ways. As you follow this discussion, remember whether the COMMAND LINE pointer or the TEMPLATE pointer is affected. It will make it easier to copy the correct portions of the TEMPLATE buffer to the COMMAND LINE. For example, when you type on the COMMAND LINE, you are also moving the pointer in the TEMPLATE buffer. If you are in the INSERT MODE, however, the pointer in the TEMPLATE buffer does NOT move with the COMMAND LINE pointer. Exiting INPUT MODE, causes the TEMPLATE pointer to follow the command line pointer. More about this under the INSERT AND DELETE KEYS.

ZENITH ==> Copy one character from TEMPLATE to COMMAND LINE
<F1> This key takes the character at the TEMPLATE pointer and copies it to the command line. You can use this to
IBM PC copy the entire buffer to the command line, but there
<F1> are faster ways.

ZENITH ==> Copy all characters up to "Target Character"
<F2> Use the key to rapidly copy all characters from the TEMPLATE pointer up to the target character you
IBM PC provide. In other words, if the TEMPLATE contains:
<F2>

COPY OLDFILE,TYP NEWFILE.TYP

and you want to replace the comma with a period, type:

<F2>, <F2>.

and the COMMAND LINE will now have:

COPY OLDFILE_

with the pointer located at the underline above. Now type the period and use the COPY REST key F3 . . .

ZENITH ==> Copy all remaining characters to COMMAND LINE
<F3> This it the copy-all-the-rest key. It copies the rest of the characters in the TEMPLATE to the COMMAND LINE,
IBM PC starting with the one at the TEMPLATE pointer. This
<F3> key is useful for typing repeated command lines. For example, if you were cataloging your disks using a command line such as:

A>DIR | SORT/+1 >PRN:

(Get the directory, sort it by name and sent it to the printer--uses some pipes and filters to . . .-- but that's another article) you could do disk after disk simply by typing <F3>/<F3>

ZENITH ==> Skip ONE CHAR in the TEMPLATE buffer.
<F4> This is the companion to the <F1>/<F1> key, except that instead of putting one char on the command line, it
IBM PC skips over one character in the TEMPLATE buffer. For LINE (if you have pressed <RETURN> or <F0>/<F5>, then it's also in the TEMPLATE buffer):

A>COPY OLDFILEE.TYP NEWFILE.TYP

type <F0>/<F5> to copy this line into the TEMPLATE buffer. (if you haven't pressed <RETURN> yet), then use

<F2>E <F2>E

to copy all the characters in the TEMPLATE buffer up to the first E back to the COMMAND LINE. The new COMMAND LINE now looks like this:

A>COPY OLDFIL_

Now the TEMPLATE buffer pointer is pointing at that E. We want to skip over it so type:

<F4> <DEL>

to skip over it, followed by:

<F3> <F3>

to copy the rest of the TEMPLATE buffer to the command line.

ZENITH <F5>

IBM PC <F4>

==> Skip until target character key.
This is the companion of the <F2>/<F2> key. It allows you to move the TEMPLATE buffer pointer rapidly along the buffer. The TEMPLATE buffer pointer is moved until it is sitting before the target character. For example, you have this line in the TEMPLATE buffer from a previous use:

COPY B:OLDFILE.COM A:NEWNAME.COM

You have just copied this COM file to your A disk and now you want to run it. A quick way to get the command line with just four keystrokes is: Type

<F5>N <F4>N

This will skip over every character in the TEMPLATE buffer till it finds an N. There will be nothing showing on the command line, but the TEMPLATE buffer

Now, you could use the <F1>/<F1> key to copy one char at a time to the COMMAND LINE, but a much faster way is to use the key we've already learned, namely, type

<F2>. <F2>. <== that's a period after the <F2> key . . .

and NEWNAME will be copied to the COMMAND LINE. Now just press RETURN to run the program, a total savings of 3 keystrokes. (Let's see, three keystrokes a minute, 60 minutes an hour, 24 hours in a day . . . Wow, just think of the time savings ! ! !)

INSERT
- ON -
ZENITH
<F6>

<INS>

INSERT
-OFF -
ZENITH
<F7>

IBM PC
<INS>

==> INSERT on and INSERT off keys.
These two keys determine whether the TEMPLATE buffer pointer is stopped or keeps moving as you enter characters on the COMMAND LINE. This is useful if you have left out characters somewhere in your COMMAND line. The following example will illustrate the use of both keys. Suppose you have just entered the following line and caught your mistake before pressing <RETURN>:

A>COPY OLDFILERYP NEWFILE.TYP <== you wanted OLDFILE.TYP

First, since you have not pressed <RETURN>. press <FØ> to copy the COMMAND LINE to the TEMPLATE buffer. Now use the express lane key by typing:

<F2>T <F2>T

to get you to the proper place. The command line will now look like this:

A>COPY OLDFILE_

If you do not press the INSERT KEY, when you type the required period after OLDFILE, you will also move the TEMPLATE buffer pointer, so that instead of pointing to the R of RYP, it would now be pointing to the Y. Not what we want . . . Enter:

<F6>. <INS>.

will add the period to the command line and the TEMPLATE BUFFER pointer is now pointed to the R or RYP.

NOTE: When you type any other function key, you automatically drop out of the INSERT MODE. To exit INSERT MODE immediately before using another function key, you must use the EXIT INSERT MODE key: <F7> on the Zenith, the <INS> key on the IBM (the IBM <INS> key acts as a toggle, switching back and forth between on and off.)

Since we have not used any other function key, we have to exit the INSERT MODE. Type:

<F7>T <INS>T

to exit and write over the R in the template. The rest of the line is correct, so use the <F3>/<F3> key to transfer the rest of the TEMPLATE buffer to the COMMAND LINE.

GROWING PAINS . . .

At the beginning, it seems like it is easier just to retype the line than to use the function keys ("I'm always hitting the SKIP key instead of the COPY key . . ."), but when you get familiar with the keys, you'll hate to do it any other way.

NPS HOBBY COMPUTER CLUB NEWS

THE IBM-PC PUBLIC DOMAIN SOFTWARE LIBRARY HAS BEEN ADDED TO THE NPSHCC LIBRARIES!!!!!!IT CONSISTS OF BASICA AND BASIC PROGRAMS AS WELL AS COM/EXE FILES AND IN MANY CASES THE SOURCE CODE HAS BEEN INCLUDED ON DISK. IT IS UNDER MS/PC-DOS AND THE BASIC PROGRAMS ARE READILY CONVERTED TO RUN ON OTHER DOS MACHINES SINCE THE FILES ARE ALL ASCII. READ FURTHER FOR ACQUISITION PROCEDURES.

ANOTHER BENNIE OF CLUB MEMBERSHIP. THESE VOLUMES NORMALLY COST $6.00 EACH PLUS %6 SALES TAX. NOT TO MENTION THE WAIT FOR DISKETTE DELIVERY.

THE SIG/M 8-BIT PUBLIC DOMAIN SOFTWARE LIBRARY HAS BEEN DOWNLOADED ONTO 5-1/4 INCH AND 8 INCH DISK FORMATS. EACH VOLUME (1 - 135) IS ON ONE DISKETTE. THE SIG/M LIBRARY CATALOG IS ON THE NPSHCC CLUB DISKS as "SIGMLIB1 FILELIST B" and "SIGMLIB2 FILELISTB" and "SIGMLIB3 FILELIST B" or may be purchased from:

SIG/M USER GROUP
AMATEUR COMPUTER CLUB OF NEW JERSEY,INC
BOX 97
ISELIN, NEW JERSEY 08830

THE PRICE PER CATALOG COPY IS $10.00 POSTAGE PAID. THE CATALOG WILL BE AVAILABLE FOR REVIEW BY NPSHCC MEMBERS ONLY AT EACH CLUB MEETING. FOR ANY MEMBER DESIRING COPIES OF THE LIBRARY VOLUMES, THE PROCEDURE WILL BE AS FOLLOWS:

A) DELIVER 2 BLANK 5-1/4 OR 8-INCH DISKETTES FOR EACH COPY DESIRED TO DAVE SMITH, AT A CLUB MEETING OR DROP OFF SAME AT 376 F BERGIN DR., LA MESA HOUSING AREA - 373-4202.

B) ONE DISK WILL BE RETURNED TO YOU ON WHICH WILL BE RECORDED THE SIG/M SOFTWARE WHICH YOU REQUESTED. THE SECOND DISK WILL BE USED TO EXPAND OUR CLUB LIBRARY OF PUBLIC DOMAIN SOFTWARE.

C) LABEL ONE OF YOUR DISKETTES WITH THE VOLUME NUMBER OF THE SOFTWARE DESIRED AND YOUR NAME. THE SECOND DISK MAY BE LEFT BLANK. YOUR DISKETTE WILL BE READY FOR

PICKUP AT THE NEXT CLUB MEETING OR AFTER TWO DAYS.

WE HAVE 100 DISKS OF THE IBM-PC BASIC (SAVED IN ASCII FORM) PUBLIC DOMAIN SOFTWARE LIBRARY FROM PC-SIG. THIS SOFTWARE IS AVAILABLE UNDER THE SAME PROCEDURES AS THE SIG/M SOFTWARE, TO ANY CLUB MEMBER INTERESTED IN CONVERTING THE SOURCE CODE TO RUN UNDER Z-BASIC ON THE Z-100, OR FOR IMMEDIATE USE ON THE IBM-PC OR COMPATABLES. THE ENTIRE LIBRARY IS LISTED ON THE NPSHCC CLUB DISK UNDER THE FILENAMES: "IBMPCLIB DESCRIP", "IBMPCLIB LISTING", AND "IBMPCLIB INDEX". THEY CAN BE DOWNLOADED FROM THERE TO YOUR OWN DISK OR PRINTED OUT AT SCHOOL. ENJOY. P.S. THE "UNPROT" FILES WILL UNPROTECT IBMPC BASIC PROGRAMS WHICH WERE SAVED UNDER PROTECTED STATUS..... THIS PROGRAM HAS ALREADY BEEN PUT TO PRODUCTIVE USE BY YOUR ELECTED CLUB OFFICERS. THE HEATH/ZENITH SIG SHOULD SEE THE BENEFITS OF THIS IN A MONTH OR TWO.....

IF THERE ARE ANY QUESTIONS, CONTACT DAVE SMITH, SMC-1791, 373-4202.

RETRIEVING THAT LOST (MSDOS) WORDSTAR FILE

By J. L. Dove III

Those of you who have switched to 16-bit have found that WordStar works about the same as in 8-bit. I have found, however, that the MSDOS version has an annoying habit of dropping out of the program at times, usually when I have entered several pages without a save . . .

Here is a way to recover most of the files, most of the time.

1. When you find youself popped out of WordStar, immediately run DEBUG. This is the MSDOS equivalent of CP/M's DDT. DEBUG has some excellent features which make it simpler to recover your lost file.

2. As in the 8-bit world, you can D(isplay) all of memory till you find your file, but it is much simpler if you remember some of the text of your file. Use DEBUG's Search command to do your searching for you. For purposes of example, I have "recovered" this file from memory. Here's how.

3. Type (the underlined portions are your input)

-S 0 FFF0 'RETRIEVING'<CR> <== <CR> means RETURN or ENTER key
 ----

DEBUG will return with:

```
0EA3:6873          <== Ignore the first four numbers.
0EA3:BC0B
```

Since there are two possible locations, look at each in turn with the D(isplay) command. If they are both the same (as mine were), then pick either one. Now look prior to these addresses until you find the actual beginning of our article.

4. Write down the beginning address (I found it to be BC00 Hex). We'll use that in just a moment. Continue to D(isplay) the file (just pressing D<CR> displays the next block of memory) until you reach the end of the file (or the end of what's in memory). Write down the ending address also (the end was at C055 Hex).

5. All text files end with a Control Z (a 1A hex or a 26 decimal). If there is no 1A following the end of the article, put one there with the E(nter) command as follows:

```
EC056<CR>     (DEBUG returned with
---------          0EA3:C056
29.1A<CR>
------
```

Now check to ensure the change was made by using the D(isplay) command:

```
DC050<CR>
---------
0EA3:C050 45 54 20 23 0D 0A 1A 34 51 C3 89 88 93 21 55 87 AT
#...etc.
```

6. Now let's compute the number of bytes to save. Get the starting and ending addresses you wrote down earlier. Use the built-in H(ex) math function in DEBUG as follows:

```
H <ending address> <beginning address>
```

In my case:

```
-HC056 BC00<CR>       DEBUG replies:----
 --------------                        |
                                       |
7C56 0456  <---------------------------
 ^    ^--------------difference of the two numbers
 |___________________sum of the two numbers
```

We want the difference: 0456.

7. Now we have to tell DEBUG how many bytes to write. We do this by examining and replacing the value in the CX R(egister).

```
-RCX<CR>                DEBUG replies:---
 -------                                 ¦
                                         ¦
CX 0000     <----------------------------
:456<CR>    <== now enter the size of the block from 6 above.
 -------
```

8. Now enter the N(ame) of the file you wish to save it under (also enter the drive if you are saving to other than the default drive.):

```
-N B:SAVE.FIL<CR>
 ----------------
```

9. Now we have the destination file N(amed) and CX has the size of the file to save. We just have to tell DEBUG where to start reading and W(riting):

```
-W BC00<CR>        DEBUG replies:------
 ----------                           ¦
                                      ¦
Writing 0456 bytes      <--------------
```

10. Now exit DEBUG with the Q(uit) command

```
-Q<CR>
 -----
```

and you have your file back ready to edit or print, etc.

Miscellaneous Ramblings

NPSHCC Boardmembers:

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Programs and Speakers: Jay Wallen
Projects: Joe Blanchard
Board member-at-large: Glen Oelrich
===> Party: *VACANT* <===

We currently have all back issues of the newsletter on hand except for the following:

1982: July, Sept.
1983: April, August, Sept., and Dec.

If you have any of these on hand please contact Will Dossel so we may copy them and complete the club's library.